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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,594	03/21/2005	Haruya Hashimoto	10921.0291USWO	7145

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EXAMINER

LUK, EMMANUEL S

ART UNIT	PAPER NUMBER
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1722

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/528,594

Applicant(s)

HASHIMOTO ET AL.

Examiner

Emmanuel S. Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/7/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-3 are rejected under 35 U.S.C. 10(a) as being unpatentable over Totani (6109645) in view of Nimura (5762983) and Notake (2004-025821).

Totani teaches the claimed mold having a cavity (11) with a grooving blade (18e), a supporting member (18c) and a movable core (18d).

Totani fails to teach a plurality of grooving blades, the supporting member being between the blades, and supporting member being contact with the product when the core is separated.

Nimura teaches the claimed apparatus having a mold for forming an air bag, grooving blade (3), supporting members (14) that are rods, movable core (15), and recess (13b). Nimura also teaches the grooving blade (3) on a section of the movable

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core (32) and the movable core sections (32, 36) wherein section (32) can be also considered a supporting member that is extends through the movable core. Nimura teaches the concept that the supporting member can be used to aid in the removal of the product from the core member.

Notake teaches a plurality of groove blades (52) that have support members (rods; 66, 67) that are in between the groove blades. Both Totani and Notake teach grooving blades that are independent from the supporting members and are located at different locations throughout the mold.

It would have been obvious for one of ordinary skill in the art to have modified Totani with a plurality of groove blades as taught by Notake for forming plural break points on the product and supporting members comprising of rods that come into contact with the product when the core is separated as taught by Nimura for aiding in the removal of the product from the mold.

In regards to claim 3, the recess located on a movable core is a change in shape of the mold for forming a feature of the product and it would have been obvious to one of ordinary skill in the art to have features on a mold surface for forming the desired shape of the product as per design choice.

4. Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Totani (6109645) in view of Nimura (5762983) and Notake (2004-025821) as applied to claims 1-3, and further in view of Sorenson (4867672).

Totani, as modified by Nimura and Notake, fails to teach a drive block, follower block, and an inclined cam surface. Nimura does teach two different mold core sections, one section 32 being movable while another section having the grooving blade does not move with the outer sections and Nimura also teaches rods for the supporting member that is also independently operable.

Sorenson teaches a 'block' (20) that is in connection with the inclined cam surface (16) of the 'drive block'. See Figures 1 and 2.

It would have been obvious for one skilled in the art to modify Totani, as modified by Nimura and Notake, to have a second drive source for operating the section with the grooving blade.

It would have been obvious for one of ordinary skill in the art to modify Totani, as modified by Nimura and Notake with a drive element for the movable core as taught by Sorenson for control of the mold element.

5. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Totani (6109645) in view of Nimura (5762983) and Notake (2004-025821) as applied to claims 1-3, and further in view of Kikuchi (6042363).

Totani, as modified by Nimura and Notake, fails to teach cooling means for the movable core, including a duct in the movable core and another in the follower block.

Nimura teaches a duct (67) for cooling that is located in the movable core (20) and in the 'follower' block (60). The follower block (34) also teaches the concept of a connecting member that would connect a plurality of grooving blades and a support

member (31) is the support member that is a rod extending through the connecting member.

It would have been obvious for one of ordinary skill in the art to modify Totani, as modified by Nimura and Notake, with the cooling means in the movable core as taught by Kikuchi for cooling the article and shortening the process.

Allowable Subject Matter

6. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of reference fails to teach a mold having a supporting member, movable core, follower block and driving block, grooving blade with second drive source, and further having auxiliary block with the second drive source being provided at the support body.

Response to Arguments

8. Applicant's arguments filed 11/7/06 have been fully considered but they are not persuasive. Applicant's arguments concerning Nimura have been noted in particular with the movable core in relation to the supporting member and the grooving blades. However, new prior art reference, Totani, teaches these separate elements and the

relation and this reference, in view of Notake (JP 2004-025821 from the IDS) and Nimura, teaches the claimed apparatus. The applicant's argument concerning remaining rejections based on the other references from the previous office action stem from the Nimura reference and thus remain in the modified rejections of the claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tajiri (5898621) and Hilaire (3940103).

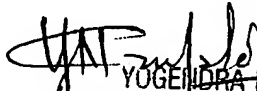
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Fridays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL


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